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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,610	08/19/2003	Samuel Mark Gillette	9305-1HP	4941
20792	7590	10-15/2004	EXAMINER	
MYERS BIGEL SIBLEY & SAJOVEC PO BOX 37428 RALEIGH, NC 27627			PIZIALI, ANDREW T	
			ART UNIT	PAPER NUMBER
			1771	

DATE MAILED: 10/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/643,610

Applicant(s)

GILLETTE ET AL.

Examiner

Andrew T Piziali

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) 1-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 32-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 1/7/04 & 11/24/03
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-38, drawn to a method of forming a loop component, classified in class 28, subclass 161.
  - II. Claims 32-59, drawn to a loop component and a hook and loop fastening system, classified in class 442, subclass 408.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by another and materially different process. A melt blow method or needle punching method can make the product.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Needham Boddie on 10/7/2004 a provisional election was made with traverse to prosecute the invention of Group II, claims 32-59.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-38 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 34-39, 54-55 and 58-59 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Regarding claims 34-35 and 58, the specification fails to teach how to configure the loop structures to engage hooks from a hook component having the claimed hook density or hook lengths. Regarding claims 36-39 and 59, the specification fails to teach how to make loop structures with the claimed peel strengths or sheer strengths. Regarding claim 54, the specification fails to teach how to make a spunlaced fabric and backing layer with the claimed Frazier air permeability. Regarding claim 55, the specification fails to teach how to make a spunlaced fabric and backing layer with the claimed MD grab tensile strength.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 32, 35, 40, 42-46, 48-50 and 52-53 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,326,612 to Goulait.

Regarding claims 32, 35, 40, 42-46, 48-50 and 52-53, Goulait discloses a loop component for use in a hook and loop fastening system comprising a nonwoven web fabric having a plurality of loop structures formed by entangling a plurality of non-interbonded fibers in a fibrous web of material wherein between about two percent and about twenty-five percent of a surface area of the fabric is bonded (see entire document including column 1, lines 7-11, column 8, lines 53-63, column 12, lines 41-61, column 13, lines 46-50 and column 22, lines 39-51).

Goulait does not specifically mention the use of spunlaced fabric, but Goulait does disclose that the nonwoven web can be produced by many different processes including carding or spunbonding without a subsequent bonding step (column 13, lines 46-50). Absent a showing to the contrary, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re*

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*Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show obvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claim 35, Goulait discloses that the hooks may have a length of about 0.3 mm (column 19, lines 26-50).

Regarding claim 40, Goulait discloses that the fibers may have a denier of between 0.5 and 15 (column 3, lines 38-66 and column 11, lines 5-28).

Regarding claim 42, Goulait discloses that the nonwoven web preferably has a thickness sufficient to accommodate the hooks of the material hooking component (column 22, lines 52-63). Considering that Goulait discloses that the hooks may have a length of about 12 mils (column 19, lines 26-50), Goulait teaches, or at least strongly suggests, that the nonwoven web may have a thickness of between about 10 and 95 mils.

Regarding claim 43, Goulait discloses that the non-interbonded fibers may comprise any suitable material such as polypropylene, polyethylene, PET, polyester, or any combination and/or mixture of these and other suitable materials known in the nonwoven fabric industry (column 12, lines 18-32).

Regarding claim 44, Goulait discloses that nonwoven web may be embossed with a decorative pattern (column 16, lines 36-43).

Regarding claims 45-46, 48-50 and 52-53, Goulait discloses that a backing layer may be bonded to the nonwoven web (column 3, lines 38-66 and column 14, lines 1-40).

Regarding claims 46 and 49, Goulait discloses that the backing layer may comprise any suitable material such as polypropylene, polyethylene, or polyester (column 14, lines 11-27).

Regarding claim 48, Goulait discloses that the backing layer may be bonded to the nonwoven web either thermally, adhesively, autogenenously, or ultrasonically (column 14, lines 33-40 and column 15, lines 46-48).

Regarding claim 50, Goulait discloses that the backing layer may have a thickness between about 0.4 and 40 mils (column 14, lines 11-27).

Regarding claim 52, Goulait discloses that the nonwoven web preferably has a thickness sufficient to accommodate the hooks of the material hooking component (column 22, lines 52-63). Considering that Goulait discloses that the hooks may have a length of about 12 mils (column 19, lines 26-50), Goulait teaches, or at least strongly suggests, that the nonwoven web may have a thickness of between about 10 and 95 mils. Goulait also discloses that the backing layer may have a thickness between about 0.4 and 40 mils (column 14, lines 11-27). Therefore, Goulait discloses that the overall thickness of the loop component may be between about 8 mils and 400 mils.

Regarding claim 53, Goulait discloses that the nonwoven web may have a basis weight of between about 6 and about 42 grams per square meter (column 3, lines 38-66). Goulait does not specifically mention a basis weight range for the backing layer, but considering that the nonwoven web alone may have a basis weight of greater than or equal to 19 grams per square meter, and considering that the backing layer is positioned directly under the nonwoven web

layer, Goulait discloses that the overall basis weight of the loop component may be greater than or equal to 19 grams per square meter.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 32, 34-56 and 58-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,326,612 to Goulait in view of USPN 6,503,855 to Menzies et al. (hereinafter referred to as Menzies).

Regarding claims 32, 34-56 and 58-59, Goulait discloses a loop component for use in a hook and loop fastening system comprising a nonwoven web fabric having a plurality of loop structures formed by entangling a plurality of non-interbonded fibers in a fibrous web of material wherein between about two percent and about twenty-five percent of a surface area of the fabric is bonded (see entire document including column 1, lines 7-11, column 8, lines 53-63, column 12, lines 41-61, column 13, lines 46-50 and column 22, lines 39-51).

Goulait discloses that the nonwoven web can be produced by many different processes including carding or spunbonding (column 13, lines 46-50), but Goulait does not specifically mention the use of a nonwoven spunlaced fabric. Menzies discloses that it is known in the art that a spunlaced nonwoven web fabric may be used to produce the loop component in a hook and loop fastening system (see entire document including column 15, lines 7-24). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make



the nonwoven web fabric of Goulait from any suitable nonwoven web material, such as a spunlaced nonwoven web fabric, as taught by Menzies, because it is within the general skill of a worker in the art to select a known material on the basis of its suitability.

Regarding claims 34, 56 and 58-59, Goulait does not mention a specific hook density, but Goulait discloses that the amount of open space between the fibers may be varied depending on the size of the hooks (column 8, lines 4-11). Goulait also discloses that the number of hooks can be varied depending on the intended use (column 17, lines 52-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the hook density, such as from about 30 to about 400 hooks per square centimeter, depending on the intended use, because it is understood by one of ordinary skill in the art that the strength of the hook and loop fastening system depends directly on the hook density and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claims 35 and 58, Goulait discloses that the hooks may have a length of about 0.3 mm (column 19, lines 26-50).

Regarding claims 36-39 and 59, Goulait does not specifically mention the average peel strength, maximum load peel strength, average peak shear strength, or maximum average peel strength of the loop structures, but Goulait does disclose that the strength of the loop structures can be approximated from the basis weight of the web, the denier, and material composition of the fibers (column 9, lines 50-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the basis weight, denier, and/or material composition of the fibers to obtain the desired average peel strength, maximum load peel

strength, average peak shear strength, or maximum average peel strength of the loop structures, because it is understood by one of ordinary skill in the art that the basis weight, denier, and material composition of the fibers determines the strength of the loop structures and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 40, Goulait discloses that the fibers may have a denier of between 0.5 and 15 (column 3, lines 38-66 and column 11, lines 5-28).

Regarding claims 41 and 47, Goulait does not specifically mention a density range of the fibers, but Goulait does disclose that the density of the fibers can be varied depending on the intended use and the desired strength (column 17, lines 52-60). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the density of the fibers, such as from 0.1 to 1.2 grams per cubic centimeter, because it is understood by one of ordinary skill in the art that the strength of the nonwoven web depends directly on the fiber density and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 42, Goulait discloses that the nonwoven web preferably has a thickness sufficient to accommodate the hooks of the material hooking component (column 22, lines 52-63). Considering that Goulait discloses that the hooks may have a length of about 12 mils (column 19, lines 26-50), Goulait teaches, or at least strongly suggests, that the nonwoven web may have a thickness of between about 10 and 95 mils.

Regarding claims 43 and 47, Goulait discloses that the non-interbonded fibers may comprise any suitable material such as polypropylene, polyethylene, PET, polyester, or any

combination and/or mixture of these and other suitable materials known in the nonwoven fabric industry (column 12, lines 18-32).

Regarding claim 44, Goulait discloses that nonwoven web may be embossed with a decorative pattern (column 16, lines 36-43).

Regarding claims 45-49 and 50-55, Goulait discloses that a backing layer may be bonded to the nonwoven web (column 3, lines 38-66 and column 14, lines 1-40).

Regarding claims 46 and 49, Goulait discloses that the backing layer may comprise any suitable material such as polypropylene, polyethylene, or polyester (column 14, lines 11-27).

Regarding claim 48, Goulait discloses that the backing layer may be bonded to the nonwoven web either thermally, adhesively, autogenenously, or ultrasonically (column 14, lines 33-40 and column 15, lines 46-48).

Regarding claim 50, Goulait discloses that the backing layer may have a thickness between about 0.4 and 40 mils (column 14, lines 11-27).

Regarding claim 51, Goulait does not mention the a specific density range for the backing layer, but Goulait does disclose that the loop component may be used in clothing, disposable articles, and various miscellaneous articles such as safety belts and the like (column 1, lines 14-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the density of the backing layer, based on the wide variety of possible uses for the loop component, because the desired density in dependant on the intended use and because the backing layer merely provides a foundation for the nonwoven web (column 14, lines 1-10).

Regarding claim 52, Goulait discloses that the nonwoven web preferably has a thickness sufficient to accommodate the hooks of the material hooking component (column 22, lines 52-

63). Considering that Goulait discloses that the hooks may have a length of about 12 mils (column 19, lines 26-50), Goulait teaches, or at least strongly suggests, that the nonwoven web may have a thickness of between about 10 and 95 mils. Goulait also discloses that the backing layer may have a thickness between about 0.4 and 40 mils (column 14, lines 11-27). Therefore, Goulait discloses that the overall thickness of the loop component may be between about 8 mils and 400 mils.

Regarding claim 53, Goulait discloses that the nonwoven web may have a basis weight of between about 6 and about 42 grams per square meter (column 3, lines 38-66). Goulait does not specifically mention a basis weight range for the backing layer, but considering that the nonwoven web alone may have a basis weight of greater than or equal to 19 grams per square meter, and considering that the backing layer is positioned directly under the nonwoven web layer, Goulait discloses that the overall basis weight of the loop component may be greater than or equal to 19 grams per square meter.

Regarding claim 54, Goulait does not specifically mention a Frazier air permeability value of the disclosed loop component, but Goulait does disclose that the nonwoven web may have open spaces and that the open spaces may vary in size (column 7, lines 37-50, column 8, lines 4-11 and the paragraph bridging column 8 and 9). Goulait also discloses that the loop component may be used in clothing, disposable articles, and various miscellaneous articles such as safety belts and the like (column 1, lines 14-25). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the size of the openings, such that the Frazier air permeability is less than about 25 cubic feet per minute, such that the

permeability is that desired for the intended application, and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

Regarding claim 55, Goulait does not specifically mention the MD grab tensile strength of the nonwoven web and backing layer, but Goulait does disclose that the strength of the loop structures can be approximated from the basis weight of the web, the denier, and material composition of the fibers (column 9, lines 50-54). It would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the basis weight, denier, and/or material composition of the fibers to obtain the desired MD grab tensile strength, because it is understood by one of ordinary skill in the art that the basis weight, denier, and material composition of the fibers determines the strength of the loop structures and because it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

12. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,326,612 to Goulait as applied to claims 32, 35, 40, 42-46, 48-50 and 52-53 above, and further in view of any one of USPN 6,217,693 to Pelham or USPN 6,342,285 to Shepard et al. (hereinafter referred to as Shepard).

Goulait does not mention stretching the fabric, but Pelham and Shepard each disclose that it is known in the hook and loop art to stretch a nonwoven fabric in the cross web direction between about five percent and about one hundred twenty-five percent to increase the area of the product and to improve the strength of anchorage of the loops (see entire document of Pelham including column 2, line 54 through column 3, line 25, see entire document of Shepard including the paragraph bridging columns 15 and 16). It would have been obvious to one having ordinary

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skill in the art at the time the invention was made to stretch the nonwoven fabric of Goulait, as taught by each of Pelham and Shepard, because the stretching increases the area of the product and improves the strength of anchorage of the loops.

13. Claims 33 and 57 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,326,612 to Goulait in view of USPN 6,503,855 to Menzies as applied to claims 32, 34-56 and 58-59 above, and further in view of any one of USPN 6,217,693 to Pelham or USPN 6,342,285 to Shepard.

Goulait does not mention stretching the fabric, but Pelham and Shepard each disclose that it is known in the hook and loop art to stretch a nonwoven fabric in the cross web direction between about five percent and about one hundred twenty-five percent to increase the area of the product and to improve the strength of anchorage of the loops (see entire document of Pelham including column 2, line 54 through column 3, line 25, see entire document of Shepard including the paragraph bridging columns 15 and 16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to stretch the nonwoven fabric of Goulait, as taught by each of Pelham and Shepard, because the stretching increases the area of the product and improves the strength of anchorage of the loops.

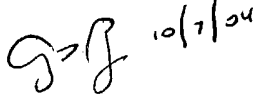
### ***Conclusion***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

 10/1/04  
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